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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/054,986      | 04/03/1998  | MARK W. STAVNES      | SC-5285             | 3346             |

7590 03/01/2002

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EXAMINER

NOLAN, SANDRA M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1772

DATE MAILED: 03/01/2002

17

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/054,986

Applicant(s)

STAVNES ET AL.

Examiner

Sandra M. Nolan

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 11 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-26, 36 and 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-26, 36, and 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Prosecution Application***

1. The request filed on December 11, 2002 (Paper No. 15) for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/054986 is acceptable and a CPA has been established. An action on the CPA follows.

### ***Preliminary Amendment/Claims***

2. The preliminary amendment dated December 11, 2001 (Paper No. 16) has been entered.

Claims 24-26, 36, and 39 are pending.

### ***Rejection Withdrawn***

3. The 35 USC 112 rejection of claims 36 and 39, as set out in section 7 of the June 13, 2001 Office Action (Paper No. 13) is withdrawn in view of applicants' comments in Paper No. 16.

### ***Rejections Maintained***

4. The 35 USC 103 rejection of claims 24-26 as unpatentable over Brown et al (US-5,975,145) in view of Tobin (US 4,349,803), as explained in section 4 of Paper No. 13, is maintained for the reasons of record.

K. 5. The 35 USC 103 rejection of claims 36 and 39 as unpatentable over Brown et al in view of Schmunk, as set out in section 5 of Paper No. 13, is maintained for reasons of record.

### ***Claim Rejections - 35 USC § 112***

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6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 36 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 36, from which claim 39 depends, is confusing. On the one hand, it says that uniformity in the thickness of the arc-quenching tube is attained by keeping the first fiber layer flat. On the other, it says that the uniformity is such that variations in thickness are less than a minimum predetermined wall thickness, with small non-uniformity such that the minimum predetermined wall thickness is not affected (How could the thickness be affected? Wasn't it predetermined?) and the non-uniformity does not impact or interfere with the desired wall thickness (Where is the non-uniformity? The first reference to uniformity in claim 36 says that the tube's thickness is uniform because the first layer is flat. Are the layers on top of the first not flat? How are they configured? If they bulge out, how is the tapering of the tube controlled?)

Furthermore, the relationship between (non)uniformity and wall thickness is hard to understand. What are the units in which Applicants measure (non)uniformity? If there is a ratio of such units to the thickness of the fuse tubes' thinnest and/or thickest section(s), that relationship should be set out in the claims.

Please clarify the claims.

***Response to Arguments***

8. Applicant's arguments with respect to claims 36 and 39 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed in Paper No. 16 have been fully considered but they are not persuasive.

The arguments in Paper No. 16 will be responded to in the order in which they were presented.

On page 2 of Paper No. 16, applicants argue that claim 36, as amended, says that the non-uniformity limitation of claim 36 renders it patentable over the art of record.

However, the Tobin and Brown fuse tubes are made by fiber winding (see col. 4, line 9 of Tobin and col. 2, lines 42+ of Brown). It is a matter of design choice to give the fuse tube a tapered, cylindrical or any other desired shape.

On page 2, applicants argue that claims 24-26 are patentable because Tobin does not suggest the use of melamine in a wound fuse tube.

However, col. 4, lines 6-25 of Tobin describe a wound body 12 (col. 4, line 7) containing an arc-extinguishing material, such as melamine (col. 4, line 16).


Assuming, *arguendo*, that the (non)uniformity of the fuse tube vis-à-vis its thickness is indeed characteristic of the fuse tubes claimed here, that (non)uniformity would be a latent or inherent property in the fuse tubes suggested by the combination of Brown and Tobin (for claims 24-26) and Brown and Schmunk (for claims 36 and 39).

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***Conclusion***

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.

  
S. M. Nolan  
Patent Examiner  
Technology Center 1700

SMN/smn  
February 28, 2002  
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